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Transportation Survey of Some 400 Trucks at 16 Livestock Markets in South Dakota

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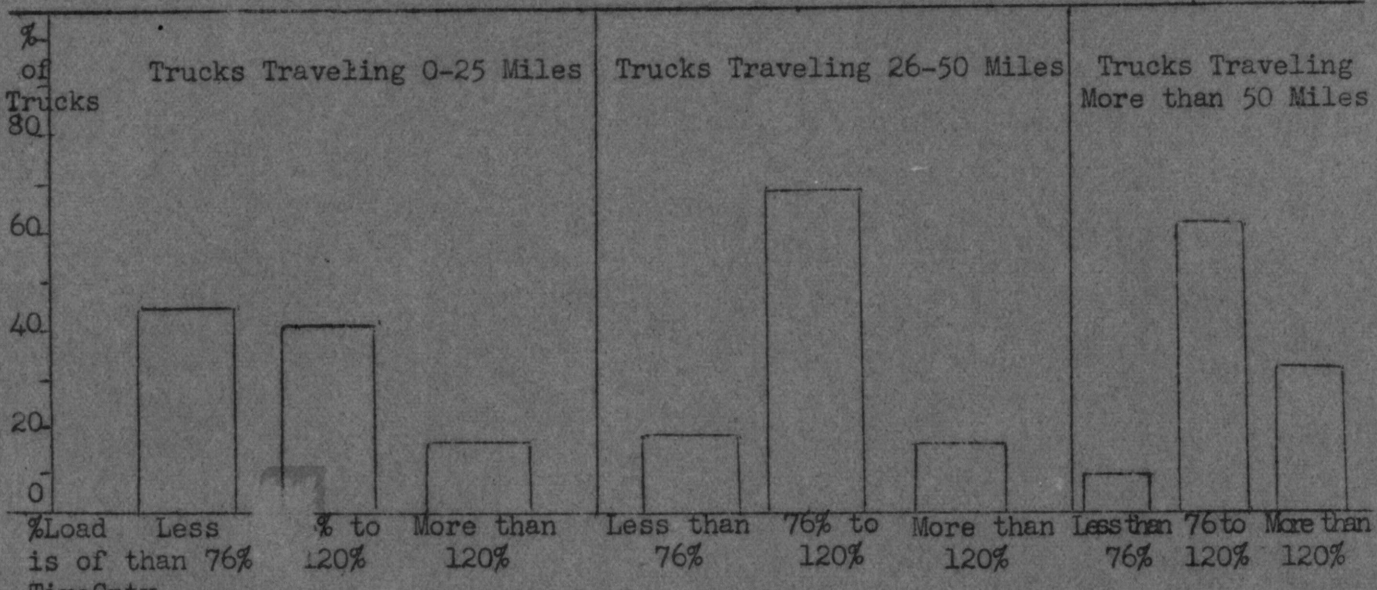
Relation of Market Loads from Specified Distances to Rated Tire Capacity
Livestock Trucks Unloading at 16 South Dakota Markets, July, 1942.



Relation of Back Hauls to Rated Tire Capacity of Trucks From Given Distances
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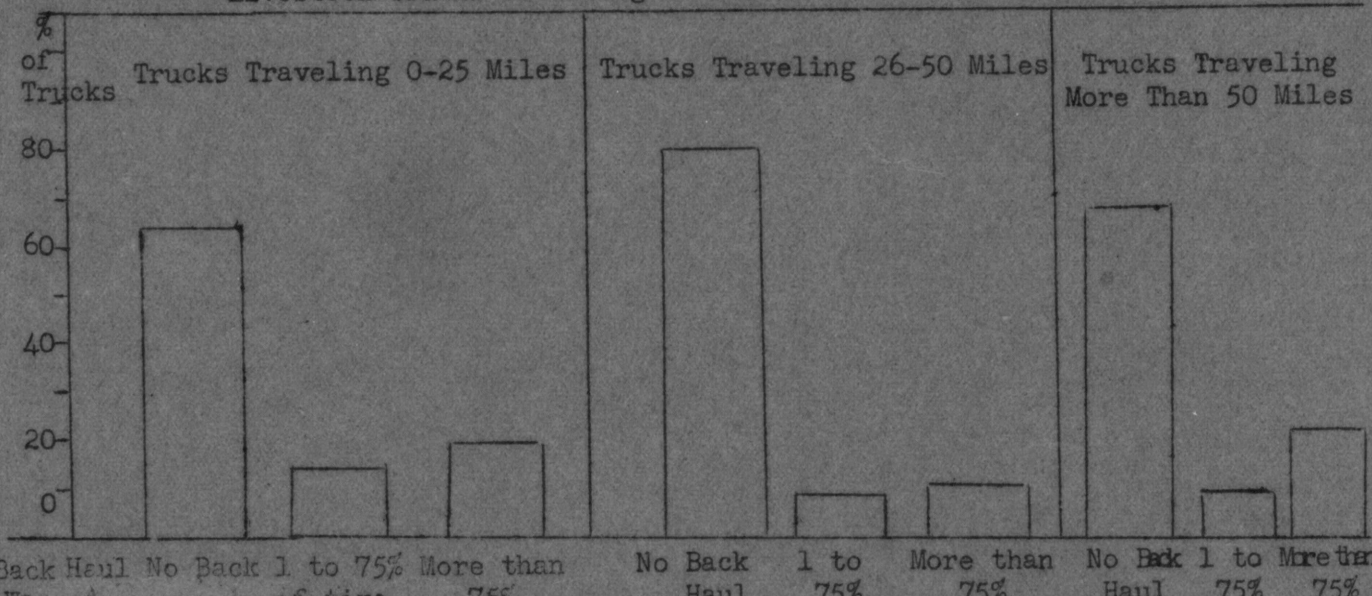

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Agricultural Extension Service and State and County War Boards Cooperating

FOREWORD

A statewide study of existing transportation facilities, needs and arrangements is an immediate outgrowth of the rubber situation, lack of motor and motor parts replacement and an imminent shortage of man power, although the study promises to produce results of a permanent character. The general plan and outline of the study as undertaken in South Dakota had its inception in the Corn Belt Livestock Marketing Research Committee as a result of 14 states in this area and the Bureau of Agricultural Economics cooperating in a livestock marketing study in 1941.

The work in the state has been made possible by the wholehearted support and cooperation of the state and county agricultural extension workers and War Board Chairmen.

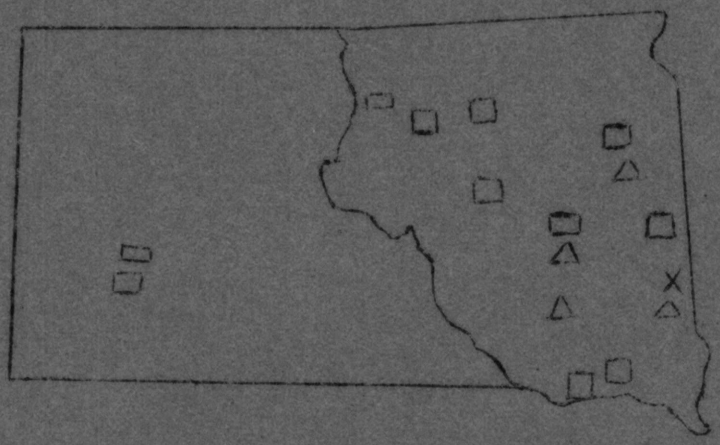
The study is divided into the following phases: (1) Survey of transportation arrangements at livestock markets; (2) Survey of creamery, produce, and oil routes in 8 selected counties; (3) Survey of farmer transportation uses and needs in 26 counties; (4) A study of total in and out shipments and transportation arrangements in 14 selected counties. A report will be made of each phase of the study as it is completed. The present report deals with transportation to livestock markets.

The material presented in this report is based on a survey of some 400 trucks and conveyances unloading livestock at 16 markets in South Dakota during July, 1942. Each market was visited from 1 to 3 days, and every truck that the enumerator had time for was contacted during that period.

The markets included the Sioux Falls Terminal Public Market, four of the larger packing plants in the state, and 11 livestock auction agencies scattered throughout the state. The distribution of these markets is shown on the map below.

At the auction agencies a count was made of all types of conveyances unloading, irrespective of whether a questionnaire was obtainted from each.

Distribution of Livestock Markets at Which Surveys Were Made
South Dakota, July, 1942



× Terminal Public Market
△ Packing Plant
□ Livestock Auction Agency

Transportation Survey of Trucks Unloading at 16 Livestock Markets South Dakota, July, 1942

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W. P. Cotton

It is apparent that transportation in South Dakota by the summer of 1943 may, indeed, be a problem when the age and condition of trucks and tires covered by this study are considered. Eighteen percent of all trucks were of pre-1938 make and 39 percent pre-1940 (Table 5). Twenty-four percent had been driven more than 75,000 miles (Table 6), and 28 percent were classed as being in only fair or poor condition (Table 13). Eleven percent of the tires on wheels had an estimated unused mileage of less than 5000, and 22 percent an unused mileage of less than 10,000 (Table 14). This, in view of the fact that 86 percent of the trucks were driven more than 5000 miles in 1941 (Table 7) indicates that with the condition of the trucks considered and normal driving that possibly 25 to 40 percent will be off the road within a year unless new tires and parts are available. This picture becomes particularly critical when it is considered that expected unusually heavy farm marketings will necessitate much more than normal use of transportation facilities.

Of the 464 conveyances on which a count was made as to type, 25 percent were auto trailers, and 12 percent were pickup trucks (Table 1). These were found largely at livestock auction agencies and were for the most part owned by farmers. Only 7 percent of the total number on which questionnaires were obtained were of these two types. Eighty-eight percent were standard trucks and 5 percent were semi-trailers or trucks and trailers (See Table 12).

Sixty-eight percent of all trucks contacted operated for hire regularly or on occasion (see Table 4).

The extent to which trucks now in use may be used to greater capacity and more efficiently is indicated partially by the following considerations:

1. Twenty-nine percent of all trucks contacted had loads to market of less than 76 percent of the load capacity of the tires (Table 15). On the other hand, 10 percent had loads of more than 120 percent tire capacity. (This is in violation of Office of Defense Transportation General Permit No. 17-1, which states in section 501.69, paragraph (b): "No motor carrier shall operate in over-the-road service any motor truck, the gross weight of which exceeds by more than twenty percent its rated load-carrying ability.")

Only 46 percent of the small trucks contacted had loads up to 75 percent of tire capacity. In contrast, 75 percent of the medium trucks and 100 percent of the large trucks carried loads of 75 percent or more of tire capacity (see Table 6b).

2. Fifty-five percent of the trucks hauled livestock less than four days a week, although many were used for other purposes on other days (see Tables 19 and 20). Only 19 percent of the small trucks were used 4 days or more per week for livestock hauling, in comparison with 50 percent of the medium trucks and 100 percent of the large ones (see Table 6c).

3. Sixty percent were driven less than 25,000 miles in 1941 (see Table 7).

4. Forty-five percent had no deck at all.

5. Thirty-four percent traveled over 10 miles to pick up their market loads (Table 24).

6. Eighty percent had a back haul less than 50 percent of the trips made (Table 27A), and only 31 percent had a back load last trip (Table 33).

7. Only 25 percent of those having back hauls had loads of as much as three-fourths capacity 75 percent of the time (Table 27B).

There seems to be a considerable relationship between the distance

trucks travel to market and their loads and back hauls relative to tire capacity. Forty-four percent of the trucks whose loads originated within 25 miles of the market had loads less than 76 percent of the tire capacity. In contrast, only 17 percent of the trucks coming a distance of 26 to 50 miles, and 8 percent of those from over 50 miles had loads of less than 75 percent capacity. Twenty percent of the trucks from within 25 miles had back hauls of over 75% capacity, while for those from 25 to 50 and more than 50 miles the percentage having back hauls of more than 75 percent capacity was 11 and 23, respectively (see Table 36).

Since a higher percentage of conveyances unloading at auction agencies are probably from the local community than those unloading at terminal markets and packing plants the data applicable to the shorter hauls is largely applicable to trucks unloading at auction agencies. (Compare Tables 36 and 15 and the groups within these tables.) In addition, trucks unloading at local markets appear to travel a greater distance in assembling their loads than those going to a terminal market or to packing plants. Forty-seven percent of the trucks unloading at local markets traveled more than 10 miles to pick up their loads, while only 31 percent of those unloading at terminal public market, and 12 percent of those unloading at packing plants traveled more than 10 miles to pick up their loads.

There are two reasons for this difference. First, farmers selling direct to packing plants or to a terminal public market usually sell in larger lots than those selling through auctions. Second, livestock going to the terminal public market or to packing plants has already been assembled in many instances at livestock auction agencies or other local markets.

The phase of the study dealing with farmers' transportation arrangements should shed a considerable amount of additional light on the livestock transportation problem. In view of the present analysis it might be suggested that motor transportation facilities may be conserved by the following measures:

1. Transferring hauls to railroads where possible.

2. Shifting longer hauls to the larger trucks. This would mean keeping them in service every possible day.

3. Improving pickup service by limiting the number of pickups per week in a given territory and having these on schedule, or by appointment on the basis of a load along one route. Farmers can assist materially in this aspect by utilizing neighboring truckers, selling in larger numbers where possible, booking their stock with the trucker several days in advance, not requesting side drives for persons or checks, and by procuring supplies by the truck that hauls livestock.

4. In many instances farmers can drive or haul their own livestock to common assembly points to be picked up by a trucker.

5. Truckers might district the territories they serve and haul from a given area only on certain days.

6. A system by which market receipts at terminal markets and packing plants were spread out evenly through the week would enable greater use of transportation facilities and assist in avoiding overcrowding at the plants in peak seasons. 1/

1/ Several tables are presented which have not been taken up in the discussion, but which may be of considerable interest.
Appendix 1 shows the load carrying capacity of tires of various sizes and plies. This table was taken from material prepared by the Office of Defense Transportation.

Summary Tables of 386 Conveyances Delivering At Terminal Public Market, 4 Packing Plants, and 11 Livestock Auctions in South Dakota during 1 to 3 days in July, 1942

Table 1-No. of Conveyances of Each Type Unloading on Days Surveys Were Made

	Auto Trailer	Standard Trucks	Semi-Trailer	Truck & Trailer	Pickup	Total
No.	114	280	13	1	56	464
Percent	25	60	3		12	100

Table 2-Type of Owner or Operator of Conveyances

	Farmer	Firm	Farmers and L. S. Dealers or Ind. Truckers	L. S. Dealer	Ind. Trucker	Total
Number	118	8	31	27	202	386
Percent	31	2	8	7	52	100

Table 3-Source of Permits of Livestock Truck Truckers

	Federal Permit	State Permit	Both State & Federal	No Permit	Total
Number	18	223	78	89	408
Percent	4	55	19	22	100

Table 4-Type of Carrier, Livestock Truckers

	Common	Contract	Private	Total
Number	252	5	123	380
Percent	66	2	32	100

Table 5-Model of Trucks Interviewed

	1930 or before	1931 to 1935	1936 and 1937	1938 and 1939	1940	1941	1942	Total
Number	15	17	34	77	88	111	20	362
Percent	4	5	9	21	24	31	6	100

Table 6-Total Mileage of Trucks Interviewed

	25000 miles & under	25100 to 50000	50100 to 75000	75100 to 100000	100100 to 125000	More than 125000	Total
Number	55	133	79	53	17	17	354
Percent	16	38	22	14	5	5	100

Table 6b-Percentage of Trucks of Different Sizes at Markets That Were Loaded to Various Degrees of Tire Capacity
South Dakota, July, 1942

Load a percent of capacity	Small trucks 1 ton & under		Medium Trucks (1½ & 2 ton)		Large Trucks (2½ ton or over	
	Number	Percent	Number	Percent	Number	Percent
Less than 25%						
From 25-50%	6	17	9	3		
From 50-75%	13	37	68	22		
From 75-100%	8	23	118	38	1	33
More than 100%	8	23	115	37	2	67
Total	35	100	310	100	3	100

Table 6c-Percentage of Trucks Being Used Various Number of Days During the Week for Hauling Livestock
South Dakota, July, 1942

Number days per week	Small Trucks 1 ton & under		Medium Trucks (1½ to 2 ton)		Large Trucks (2½ ton or over)	
	Number	Percent	Number	Percent	Number	Percent
Seldom	13	28	42	13		
1 day a week	14	30	16	5		
2 days per week	3	7	33	11		
3 days per week	7	16	65	21		
4 days per week			69	22		
5 days per week	2	4	41	13		
6 days per week	6	13	40	12		
7 days per week	1	2	8	3	3	100
Total	46	100	314	100	3	100

Table 7-Mileage Traveled During 1941 by Trucks Unloading

	5,000 miles & under	5,100 to 25,000	25,100 to 50,000	50,100 to 75,000	75,100 to 100,000	Over 100,000 miles	Total
Number	51	157	117	14	3	1	343
Percent	14	46	33	4	2	1	100

Table 8a-Rated Capacity of Conveyances Unloading

	½ ton	3/4 ton	1 ton	1½ ton	2 ton	2½ ton	Total
Number	45	12	15	290	9	2	373
Percent	12	3	4	78	2	1	100

Table 8b-Number and Percent of Trucks Hauling at Specified Percentage of Factory Rated Capacity of Trucks

	Percentage That Load Was of Truck Capacity						
	Below 50	51-75	76-100	101-120	121-150	Over 150	Total
Number of Trucks	48	20	43	21	30	199	361
Percentage of Trucks	13	5	12	6	9	55	100

Table 9-Size of Floor of Conveyances Unloading

	½ or 3/4 ton				1 ton truck					1½ ton truck						2 ton truck				2½ ton truck			3 ton or over			
	7-5	7-4½	Oth	Tot	8-9	7-8	9 by 6½	Oth	Tot	8-12	8-13	8-13½	8-14	Oth	Tot	8-22	8-15½	Oth	Tot	8-24	Oth	Tot	26 by 7¼	8-16	Oth	Tot
No.	1	3	27	31	1	1	1	15	18	34	34	16	30	133	297	2	1	8	11	1	--	1	1	1	1	3
%	2	11	87	100	6	6	6	82	100	11	11	5	28	45	100	18	9	73	100	100	--	100	33	34	33	100

Table 10-Kind of Beds of Conveyances Unloading

	Stake	Box	Stake & Box	Pickup	Total
Number	66	83	232	19	400
Percent	17	21	58	4	100

Table 11-Deck of Conveyances Unloading

	Full Deck	Half Deck	No Deck	2/3	3/4	Total
Number	141	41	152	2	1	337
Percent	41	11	45	2	1	100

Table 12-Type of Trucks Unloading

	Standard	Semi-trailer	Auto Trailer	Truck & Trailer	Pick-up	Total
Number	335	17	21	1	4	379
Percent	88	4	5	1	2	100

Table 13-Condition of Trucks Unloading

	Excellent	Good	Fair	Poor	Total
Number	96	179	97	6	378
Percent	25	47	26	2	100

Table 14-Unused Mileage of Tires of Trucks Unloading

	No. Tires on Wheels							No. of Spare Tires						
	Under 2000 miles	2000 to 4000 miles	5000 to 9000	10000 to 19000	20000 to 29000	30000 miles & over	Total	Under 2000 miles	2000 to 4000	5000 to 9000	10000 to 19000	20000 to 29000	30000 miles & over	Total
Number	96	118	238	631	599	432	2114	58	17	30	58	59	26	248
Percent	5	6	11	30	28	20	100	23	7	12	23	24	11	100

Table 15-Number and Percentage of Trucks Hauling Loads of Specified Percentages of Rated Tire Capacity

		Percentage that Load was of Tire Capacity						
		Below 50	51-75	76-100	101-120	121-150	Over 150	Total
Trucks at all markets	No. of trucks	20	73	115	77	23	9	317
	Percentage of trucks	6	23	37	24	7	3	100
Trucks at four packing plants	No. of trucks	2	20	47	27	4	3	103
	Percentage of trucks	2	19	46	26	4	3	100
Trucks at terminal public market	No. of trucks	--	--	22	24	12	1	59
	Percentage of trucks	--	--	37	41	20	2	100
Trucks at 11 auction agencies	No. of trucks	18	53	46	26	7	5	155
	Percentage of trucks	12	34	30	17	4	3	100

Table 16-Insurance Carried by Livestock Truckers Unloading

	Public Liability and Property Damage	Livestock	Cargo	None	Total
Number	160	176	148	110	378
Percent	42	47	39	29	

Table 17-Average Total Wt. of Livestock Hauled

	Cattle		Calves		Hogs		Sheep		Horses		
Total No. trucks hauling	Total wt. Hauled	Ave. Wt.	Total Wt. hauled	Ave. Wt.	Total Wt. hauled	Ave. Wt.	Total Wt. hauled	Ave. Wt.	Total Wt. hauled	Ave. Wt.	Total ave, Wt. Per Truck
378	990890	2621	15546	41	891537	2359	131715	348	12450	33	5361

Table 18-Number of Consignors and Consignees of Load Hauled by Truckers Unloading

	Consignors						Consignees					
	1	2	3	4	5 or more	Total	1	2	3	4	5 or more	Total
Number	282	61	19	6	3	371	317	36	2	2	-	357
Percent	76	16	5	2	1	100	88	10	1	1	-	100

Table 19-Number of Days Per Week Truckers Haul Livestock in Conveyances Unloading

	Seldom	1 day a week	2 days	3 days	4 days	5 days	6 days	7 days	Total
Number	58	33	31	74	73	43	46	11	369
Percent	17	10	8	20	19	11	12	3	100

Table 20-Use Made of Trucks on the Days Not Used for Hauling Livestock by Truckers Unloading

	Farm Trucking	Gravel Hauling	General Trucking	Grain	Idle	Other	Total
Number	54	7	178	48	9	15	311
Percent	17	2	58	15	3	5	100

Table 21-Percentage of Livestock Hauled This Trip, Owned or Hauled for Hire by Truckers Unloading

	100% owneded	100% hauled for hire	Part owned & part hauled for hire	Other	Total
Number	148	204	8	13	373
Percent	40	55	2	3	100

Table 22-Number of Stops to Complete Load of Conveyances Unloading

	1	2	3	4	5 or more	Total
Number	174	49	28	19	9	279
Percent	62	18	10	7	3	100

Table 23-Extent to Which Complete Load of Trucks Was Delivered to One Agency

Total Number	Number Reporting		Percent Reporting	
	Yes	No	Yes	No
367	333	34	91	9

Table 24-Miles Traveled to Complete Load of Conveyances Unloading

	0	1-5 miles	6-10 miles	11-25 miles	over 25 miles	Total
Trucks at all markets (No. of trucks	68	77	58	69	33	305
Trucks at all markets (Percentage of trucks	22	25	19	23	11	100
Trucks at four packing plants (No. of trucks	35	24	22	11	—	92
Trucks at four packing plants (Percentage of trucks	38	26	24	12	—	100
Trucks at terminal public market (No. of trucks	9	17	16	17	2	61
Trucks at terminal public market (Percentage of trucks	14.7	27.9	26.2	27.9	3.3	100
Trucks at 11 auction agencies (No. of trucks	24	36	20	41	31	152
Trucks at 11 auction agencies (Percentage of trucks	15.8	23.7	13.1	27.0	20.4	100

Table 25-Miles Traveled by Truck from Last Stop to the Market

	0-10	11-25	26-50	51-100	Over 100 miles	Total
Trucks at all markets (No. of trucks	54	103	126	62	16	361
Trucks at all markets (Percentage of trucks	15	29	35	17	4	100
Trucks at four packing plants (No. of trucks	25	23	47	17	7	119
Trucks at four packing plants (Percentage of trucks	22	20	39	14	5	100
Trucks at terminal public market (No. of trucks	0	4	27	27	3	61
Trucks at terminal public market (Percentage of trucks	-	6.5	44.3	44.3	4.9	100
Trucks at 11 auction agencies (No. of trucks	29	76	52	18	6	181
Trucks at 11 auction agencies (Percentage of trucks	16.0	42.1	28.7	9.9	3.3	100

Table 26-Length of Time Between Departure of Truck and Arrival at Market

	Less than 1 hour	1.1 hr. to 2 hrs.	2.1 hrs. to 3 hrs.	Over 3 hours	Total
Number	68	87	43	39	237
Percent	29	37	18	16	100

Table 27a-Percent of Trips Which Conveyances Unloading Hauled Return Loads

		0-10%	11-25%	26-50%	51-75%	76-100%	Total
Trucks at all markets	(No. of trucks	128	37	45	17	33	260
	(Percentage of trucks	49	14	17	7	13	100
Trucks at four packing plants	(No. of trucks	63	26	2	5	9	105
	(Percentage of trucks	60	25	2	5	8	100
Trucks at public terminal market	(No. of trucks	29	3	20	4	3	59
	(Percentage of trucks	49.1	5.1	33.9	6.8	5.1	100
Trucks at 11 auction agencies	(No. of trucks	36	8	23	8	21	96
	(Percentage of trucks	37.5	8.3	24.0	8.3	21.9	100

Table 27b-Percentage of the Return Loads Hauled, Hauled at 75% of Rated Truck Capacity

		0-10%	11-25%	26-50%	51-75%	76-100%	Total
Trucks at all markets	(No. of trucks	51	36	104	23	70	284
	(Percentage of trucks	18	13	37	7	25	100
Trucks at four packing plants	(No. of trucks	19	26	42	8	18	113
	(Percentage of trucks	17	23	37	7	16	100
Trucks at public terminal market	(No. of trucks	11	2	19	6	21	59
	(Percentage of trucks	18.6	3.4	32.2	10.2	35.6	100
Trucks at 11 auction agencies	(No. of trucks	21	8	43	9	31	112
	(Percentage of trucks	18.8	7.1	38.4	8.0	27.7	100

Table 28-Reasons Given For Not Hauling Return Loads Each Trip by Truckers Unloading

	None Available	Don't Always buy something	Not Licensed	Other	Total
Number	270	7	25	45	347
Percent	78	2	7	13	100

Table 29-Percentage of Space Occupied by Return Load Last Trip Hauled by Trucker Unloading (for those having return loads)

	0-25%	26-50%	51-75%	76-100%	Total
Number	32	22	14	65	133
Percent	24	17	10	49	100

Table 30-Weight of Return Load Last Trip Hauled by Conveyances Unloading

	1000 lbs. and under	1001 lbs. to 2000 lbs.	2001 lbs. to 4000 lbs.	Over 4000 lbs.	Total
Number	16	18	14	60	108
Percent	14	17	13	56	100

Table 31-Number of Stops and Extra Mileage Required to Deliver Return Load Hauled by Conveyances Unloading

Number of stops to Deliver			Extra Mileage		
No. of trucks	Total No. stops	Ave. No.	No. Trucks	Total No. extra miles	Ave. no. of miles
94	107	1.1	92	446	4.8

Table 32-Place at Which Return Loads Were Booked by Truckers Unloading

Total No.	Number Reporting		Percent Reporting	
	At Home	At Destination	At Home	At Destination
102	56	46	55	45

Table 33-Commodities Hauled in Return Load Last Trip by Trucks Unloading

Total no. of Trucks	No. of Trucks Hauling Return Loads	Percent Hauling Return Loads		Machinery	Grain & Feed	Gravel or Sand	Twine	Bldg. Materials	Livestock	Groc	Oth.
			Number	8	22	13	14	12	35	1	4
386	121	31		7	18	11	12	10	29	.83	3

Table 34-Number of All Trucks From Various Distances Having Specified Loads on Market or Back Haul or Both

Load as Percent of Capacity	Distance Hauled			
	1-25 miles	26-50 miles	Over 50 miles	Total
No Back haul	81	90	53	224
Less than 50				
To market	10	3	4	17
Back haul	11	1	2	14
Both	9	1	2	12
51-75				
To market	44	16	2	62
Back haul	7	9	6	22
Both	4	3		7
76-100				
To market	40	45	24	109
Back haul	10	3	7	20
Both	5			5
101-120				
To market	9	31	23	63
Back haul	11	7	7	25
Both	2		2	4
121-150				
To market	4	8	12	24
Back haul	2	1	4	7
Both			1	1
More than 150				
To market	16	9	14	39
Back haul	1	1		2
Both				
Total number	123	112	79	314

Table 35-Number of Farmer Owned Trucks From Various Distances Having Specified Loads to Market or Back Haul or Both

Load as percent of Capacity	Distance Traveled			
	1-25 miles	26-50 Miles	Over 50 mi	Total
Less than 50 percent				
To market	4	1	1	6
Back Haul	37	22	11	70
Both	4	1	1	6
51-75				
To market	13	8		21
Back haul	1	4		5
Both		3		3
76-100				
To market	13	11	6	30
Back haul				
Both				
101-120				
To market	3	4	5	12
Back haul	1	1		2
Both				
121-150				
To market	4	1	1	6
Back Haul			2	2
Both				
More than 150				
To market	3	2		5
Back haul	1			1
Both				
Total Number to Market	40	27	13	80

Table 36-Percentage of All Trucks Delivering Livestock from Specified Distances that Had Loads and Back Hauls of Specified Percentages of Rated Tire Capacity

	Distance Traveled			
	1-25 miles	26-50 miles	Over 50 miles	Total
Number	123	112	79	
Market as Percent of Tire Capacity				
None				
1-50%	8	3	5	5
51-75%	36	14	3	20
76-100%	33	40	30	35
101-120%	7	28	29	20
121-150%	3	7	15	8
More than 150%	13	8	18	12
% of all trucks	100	100	100	100
Back Haul as Percent of Tire Capacity				
No back haul	65	80	67	72
1-50%	9	1	2	4
51-75%	6	8	8	7
76-100%	8	3	9	6
101-120%	9	6	9	8
121-150%	2	1	5	2
More than 150%	1	1		1
% of all trucks	100	100	100	100

Table 37-Percentage of 80 Farmer Owned Trucks Delivering Livestock From Specified Distances that Had Loads and Back Hauls of Specified Percentages of Rated Tire Capacity

	Distance Traveled			
	1-25 miles	26-50 miles	Over 50 mi.	Total
Number	40	27	13	80
Market Load as Percent of Tire Capacity				
Less than 50%	10	4	8	8
51-75%	33	29	46	36
76-100%	33	41	38	37
101-120%	7	15	8	15
121- 150%	10	4		8
More than 150%	7	7		6
Back Haul as Percent of Tire Capacity				
Less than 50%	92.5	81	85	87
51-75%	2.5	15		6
76-100%				
101-120%	2.5	4		3
121-150%			15	3
More than 150%	2.5			1

Table 38-Percentage of 200 Trucks of Carriers for Hire Delivering Livestock from Specified Distances that Had Loads and Back Hauls of Specified Percentages of Rated Tire Capacity

	Distance Traveled			
	1-25 miles	26-50 miles	Over 50 mi.	Total
Number	67	77	56	200
Market Load as Percent of Tire Capacity				
Less than 50%	8	1	2	4
51-75%	42	10	3	19
76-100%	28	41	29	33
101-120%	6	31	29	22
121-150%		9	18	8
More than 150%	16	8	19	14
% of all trucks	100	100	100	100
Back Haul as Percent of Tire Capacity				
Less than 50%	69	81	71	74
51-75%	9	6	3	7
76-100%	9	3	13	7
101-120%	12	8	11	10
121-150%	1	1	2	1
More than 150%		1		1
% of all trucks	100	100	100	100

APPENDIX NO. 1

The capacity of any motor truck shall be determined by multiplying the number of tires, of the size and description, mounted on the running wheels of such motor truck by the number of pounds of rated load carrying ability of such tires as designated in this Appendix; from the result of this computation there shall be deducted the unladen weight of the motor truck; the remaining balance, for the purposes of this Order shall be the capacity of such motor truck as defined herein.

FORMULA: Tires x carrying ability of tires, deduct unladen weight of vehicle. Results gives load to be carried.

EXAMPLE: tires 9.00x20
10 x 3,450 lbs. = 34,500 lbs.
14,500 lbs. unladen weight
20,000 load to be carried.

Size	Plies	Load
15"	6	1500
15"	8	1700
6.00-16	6	1130
6.00-17	6	1250
6.00-20	6	1400
6.00-20/30x5	8	1700
6.50-16	6	1290
6.50-17	6	1500
6.50-18	6	1575
6.50-20	6	1700
6.50-20/32x6	8	1950
7.00-15	6	1415
7.00-15	8	1575
7.00-16	6	1485
7.00-16	8	1650
7.00-17	6	1550
7.00-17	8	1725
7.00-18	8	1800
7.00-20	8	1950
7.00-20/32x6	10	2250
7.00-24/36x6	10	2575
7.50-15	8	1825
7.50-15	10	2225
7.50-16	6	1660
7.50-16	8	1850
7.50-17	8	2000
7.50-18	8	2100
7.50-18/32x7	10	2500
7.50-20	8	2250
7.50-20/34x7	10	2700
7.50-24	8	2550
7.50-24/38x7	10	3100
8.25-15	10	2275
8.25-15	12	2600
8.25-18	10	2550
8.25-18	12	2925
8.25-20	10	2750
8.25-20	12	3150
8.25-22	10	2950
8.25-24	10	3125
8.25-24	12	3600
9.00-15	10	2875
9.00-15	12	3200
9.00-18	10	3225

Size	Plies	Load
9.00-18	12	3600
9.00-20	10	3450
9.00-20/36x8	12	3850
9.00-22	10	3675
9.00-24	10	3925
9.00-24/40x8	12	4375
10.00-15 (9.75-15)	12	3375
10.00-18 (9.75-18)	12	3775
10.00-20 (9.75-20)	12	4000
10.00-20/38x9	14	4350
10.00-22 (9.75-22)	12	4275
10.00-24 (9.75-24)	12	4550
10.00-24/42x9	14	4925
11.00-18 (10.50-18)	12	4200
11.00-20 (10.50-20)	12	4500
11.00-20 (10.50-20)	14	4850
11.00-22 (10.50-22)	12	4750
11.00-24 (10.50-24)	12	5000
11.00-24 (10.50-24)	14	5400
12.00-18 (11.25-18)	14	5125
12.00-20 (11.25-20)	14	5475
12.00-20/40x10	16	5875
12.00-22	14	5800
12.00-24 (11.25-24)	14	6150
12.00-24/44x10	16	6600
13.00-20 (12.75-20)	16	6750
13.00-24 (12.75-24)	16	7575
14.00-20 (13.50-20)	16	8200
14.00-20 (13.50-20)	18	8700
14.00-24 (13.50-20)	16	9150
14.00-24 (13.50-24)	18	9700
#10	6	1100
#11	6	1100
#12	6	1200
#13	6	1300
#14	6	1400
#15	6	1500
#16	6	1600
#17	8	1700
#18	8	1800
#19	8	1900
#20	10	2000
#22	10	2200
#28	10	2800

Size	Plies	Load
#34	10	3400
#40	12	4000
#42	12	4200
#44	12	4400
#48	12	4800
#50	12	5000
#52	12	5200